



CORRECTED SEQUENCE LISTING

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 GREENFIELD, EDWARD
 GRAY, GARY S.

<120> METHODS OF INHIBITING T CELL
 PROLIFERATION OR IL-2 ACCUMULATION WITH CTLA-4
 SPECIFIC ANTIBODIES (AS AMENDED)

<130> RPI-016CPA2DV

<140> 10/732847

<141> 2003-12-09

<150> 08/253783

<151> 1994-06-03

<160> 39

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide

<400> 1

catgaagctt ctcgagccgc caccatggct tgccttgga

39

<210> 2

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 2

gagaattcta gactagctta agtcagaatc tgggcacggt

40

<210> 3

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 3

Arg	Tyr	Leu	Thr	Pro	Pro	Thr	Thr	Leu	Ser	Arg	Pro	Val	Ser	Gln	Asn
1				5					10					15	
Ser	Ala	Arg	Thr												
			20												

<210> 4

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 4

Arg	Asp	Val	Thr	Leu	Ala	Ala	Pro	Phe	Phe	Ile	Gly	Gly	Pro	Pro	Ala
1				5				10						15	
Thr	Val	His	Thr												
			20												

<210> 5

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 5

Asp	Glu	Val	Ser	Ala	Ala	Ser	Trp	Pro	Pro	Tyr	Tyr	Ile	Trp	Glu	Arg
1				5				10						15	
Val	Pro	His	Ala												
			20												

<210> 6

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 6

Leu	Arg	Pro	Thr	His	Gln	Phe	Leu	Pro	Ala	Tyr	Tyr	Leu	Ser	Asn	Arg
1				5				10						15	
Gln	Leu	Ser	Leu												
			20												

<210> 7

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 7

His	Phe	Asp	Tyr	Met	Ile	Arg	Asn	Arg	Thr	Pro	Tyr	Tyr	Gln	Trp	Pro
1				5					10					15	
Thr	Val	Gly	Gln												
			20												

<210> 8

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 8

Arg	Asp	Arg	Thr	Gly	Ala	Val	Val	Gly	Thr	Gln	Pro	Pro	Tyr	Trp	Leu
1				5					10					15	
Gly	Ala	Phe	Arg												
			20												

<210> 9

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 9

Gly	Phe	Trp	Gly	Met	Glu	His	Asn	Leu	Thr	Thr	Gly	Leu	Ser	Pro	Thr
1				5					10					15	
Trp	Tyr	Leu	Lys												
			20												

<210> 10

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 10

Ser	Trp	Asn	Leu	Arg	Ser	Leu	Pro	Asp	Gln	Pro	Ile	Gly	Ser	Pro	Pro
1				5					10					15	
Pro	Tyr	Trp	Leu												
			20												

<210> 11

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 11

Phe Ala Phe Lys Leu Gly Gly Asn Gly Leu Gly Gly Ala Thr Tyr Pro
 1 5 10 15
 Pro Tyr Phe Ile
 20

<210> 12

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> VARIANT

<222> 5

<223> Xaa = Any Amino Acid

<223> Synthetic peptide

<400> 12

Pro Pro Tyr Tyr Xaa
 1 5

<210> 13

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 13

Pro Pro Tyr Tyr Leu
 1 5

<210> 14

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<400> 14

Lys Val Glu Leu Met Tyr Pro Pro Pro Tyr Tyr Leu Gly Ile Gly Asn
 1 5 10 15
 Gly Thr Gly Gly
 20

<210> 15
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 15
 Gly Gly Leu Val Met Ile Glu Arg Phe Asn Lys Leu Glu Leu Thr Trp
 1 5 10 15
 Ala Asp Asp Asp
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<210> 16
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 16
 Val Cys Ala Leu Pro Asp Val Gly Tyr Glu Phe Leu Thr Ser Asn Ala
 1 5 10 15
 Asp Glu Pro Cys
 20

<210> 17
 <211> 20
 <212> PRT
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<220>
 <223> Synthetic peptide

<400> 17
 Tyr Leu Ala Asn His Phe Gly Trp Thr Ser Met Val Trp Asp Ala Asp
 1 5 10 15
 Asp Thr Gly His
 20

<210> 18
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 18
 Arg Asn Trp Ala Arg Arg Thr Ser Asn Leu Ser Trp Asp Gly Asp Asp
 1 5 10 15
 Gly Ser Arg Gly
 20

<210> 19
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 19
 Thr Ala Glu Arg Cys Val Ser Leu Thr Trp Asn Asp Asp Thr Cys Asp
 1 5 10 15
 Leu Thr Gly Ala
 20

<210> 20
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 20
 Phe Gly Leu Gln Ser Leu Cys Trp Glu Glu Asp Ala Gly Leu Val Phe
 1 5 10 15
 Gly Gln Asp Ser
 20

<210> 21
 <211> 20
 <212> PRT
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<220>
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<400> 21
 Asn Lys Glu Ser Leu Asn Trp Ala Asp Glu Leu Val Arg Lys Asp Pro
 1 5 10 15
 Pro His Gly Val
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<210> 22
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 22
 Tyr Thr Glu Leu Thr Phe Ala Asn Asp Gly Leu Gly Ser Gly Lys Asn
 1 5 10 15
 Leu Ile Pro Lys
 20

<210> 23
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 23
 Tyr Gly Ala Leu Thr Cys Phe Asn Asp Arg Ser Asp Cys Phe Phe Thr
 1 5 10 15
 Ser Pro Phe Ile
 20

<210> 24
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 24
 His Leu Asn Trp Gly Glu Glu Val Arg His Gln Gly Glu Pro Arg Ala
 1 5 10 15
 Asp Gln Pro Phe
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<210> 25
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 25
 His Leu Asn Trp Gly Glu Glu Val Arg His Gln Gly Glu Pro Arg Ala
 1 5 10 15
 Asp Gln Pro Phe
 20

<210> 26
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 26
 Val Leu Thr Phe Leu Glu Arg Leu Leu Pro Ala Val Val Pro Arg Ser
 1 5 10 15
 Cys His Pro Gly
 20

<210> 27
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 27
 Leu Ser Trp Gly Leu Glu Pro Trp Glu Gly Ser Phe Leu Trp Leu Thr
 1 5 10 15
 Glu Ser Pro Met
 20

<210> 28
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 28
 Leu Asn Trp Asp Ile Asp Ser Met Pro Met Gly Val Tyr Cys Asp Val
 1 5 10 15
 Pro Asp Ser Cys
 20

<210> 29
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 29
 Leu Thr Phe Leu Asp Asp
 1 5

<210> 30
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<400> 30
 Ala Ala Thr Tyr Met Met Gly Asn Glu Leu Thr Phe Leu Asp Asp Ser
 1 5 10 15
 Ile Cys

<210> 31
 <211> 12
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Oligonucleotide

<400> 31
 ctttagagca ca

12

<210> 32
 <211> 8
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Oligonucleotide

<400> 32
 ctctaaag

8

<210> 33
 <211> 46
 <212> PRT
 <213> Artificial Sequence

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 18, 19, 20, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37,
 38, 39, 40, 41, 42, 43, 44, 45, 46
 <223> Xaa = Any Amino Acid

<223> Synthetic peptide

<400> 33
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa Xaa Leu Thr Phe Leu Asp Asp Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45

<210> 34
 <211> 45
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> VARIANT
 <222> 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17,
 18, 19, 20, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,
 37, 38, 39, 40, 41, 42, 43, 44, 45
 <223> Xaa = Any Amino Acid

<223> Synthetic peptide

<400> 34

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa Xaa Pro Pro Tyr Tyr Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45

<210> 35

<211> 561

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(561)

<400> 35

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 Ala Met His Val Ala Gln Pro Ala Val Val Leu Ala Ser Ser Arg Gly
 1 5 10 15
 atc gcc agc ttt gtg tgt cag tat gca tct cca ggc aaa gcc act gag 96
 Ile Ala Ser Phe Val Cys Gln Tyr Ala Ser Pro Gly Lys Ala Thr Glu
 20 25 30
 gtc cgg gtg aca gtg ctt cgg cag gct gac agc cag gtg act gaa gtc 144
 Val Arg Val Thr Val Leu Arg Gln Ala Asp Ser Gln Val Thr Glu Val
 35 40 45
 tgt gcg gca acc tac atg atg ggg aat gag ttg acc ttc cta gat gat 192
 Cys Ala Ala Thr Tyr Met Met Gly Asn Glu Leu Thr Phe Leu Asp Asp
 50 55 60
 tcc atc tgc acg ggc acc tcc agt gga aat caa gtg aac ctc act atc 240
 Ser Ile Cys Thr Gly Thr Ser Ser Gly Asn Gln Val Asn Leu Thr Ile
 65 70 75 80
 caa gga ctg agg gcc atg gac acg gga ctc tac atc tgc aag gtg gag 288
 Gln Gly Leu Arg Ala Met Asp Thr Gly Leu Tyr Ile Cys Lys Val Glu
 85 90 95
 ctc atg tac cca ccg cca tac tac ctg ggc ata ggc aac gga acc cag 336
 Leu Met Tyr Pro Pro Pro Tyr Tyr Leu Gly Ile Gly Asn Gly Thr Gln
 100 105 110
 att tat gta att gat cca gaa ccg tgc cca gat tct gac ttc ctc ctc 384
 Ile Tyr Val Ile Asp Pro Glu Pro Cys Pro Asp Ser Asp Phe Leu Leu
 115 120 125
 tgg atc ctt gca gca gtt agt tgc ggg ttg ttt ttt tat agc ttt ctc 432
 Trp Ile Leu Ala Ala Val Ser Ser Gly Leu Phe Phe Tyr Ser Phe Leu
 130 135 140

ctc aca gct gtt tct ttg agc aaa atg cta aag aaa aga agc cct ctt 480
 Leu Thr Ala Val Ser Leu Ser Lys Met Leu Lys Lys Arg Ser Pro Leu
 145 150 155 160

aca aca ggg gtc tat gtg aaa atg ccc cca aca gag cca gaa tgt gaa 528
 Thr Thr Gly Val Tyr Val Lys Met Pro Pro Thr Glu Pro Glu Cys Glu
 165 170 175

aag caa ttt cag cct tat ttt att ccc atc aat 561
 Lys Gln Phe Gln Pro Tyr Phe Ile Pro Ile Asn
 180 185

<210> 36

<211> 187

<212> PRT

<213> Artificial Sequence

<220>

<223> Protein

<400> 36

Ala Met His Val Ala Gln Pro Ala Val Val Leu Ala Ser Ser Arg Gly
 1 5 10 15
 Ile Ala Ser Phe Val Cys Gln Tyr Ala Ser Pro Gly Lys Ala Thr Glu
 20 25 30
 Val Arg Val Thr Val Leu Arg Gln Ala Asp Ser Gln Val Thr Glu Val
 35 40 45
 Cys Ala Ala Thr Tyr Met Met Gly Asn Glu Leu Thr Phe Leu Asp Asp
 50 55 60
 Ser Ile Cys Thr Gly Thr Ser Ser Gly Asn Gln Val Asn Leu Thr Ile
 65 70 75 80
 Gln Gly Leu Arg Ala Met Asp Thr Gly Leu Tyr Ile Cys Lys Val Glu
 85 90 95
 Leu Met Tyr Pro Pro Pro Tyr Tyr Leu Gly Ile Gly Asn Gly Thr Gln
 100 105 110
 Ile Tyr Val Ile Asp Pro Glu Pro Cys Pro Asp Ser Asp Phe Leu Leu
 115 120 125
 Trp Ile Leu Ala Ala Val Ser Ser Gly Leu Phe Phe Tyr Ser Phe Leu
 130 135 140
 Leu Thr Ala Val Ser Leu Ser Lys Met Leu Lys Lys Arg Ser Pro Leu
 145 150 155 160
 Thr Thr Gly Val Tyr Val Lys Met Pro Pro Thr Glu Pro Glu Cys Glu
 165 170 175
 Lys Gln Phe Gln Pro Tyr Phe Ile Pro Ile Asn
 180 185

<210> 37

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide

<400> 37

gcagagagac atatggcaat gcacgtggcc cagcctgctg tgg

43

<210> 38

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide

<400> 38

gcagagagag gatcctcagt cagttagtca gaatctgggc acggttctgg

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<210> 39

<211> 107

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide

<400> 39

ggcactagtc atgaaatacc tattgcctac ggcagccgct ggattgttat tactcgctgc 60

ccaaccagcg atggccgcag caatgcacgt ggcccagcct gctgtgg 107